

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Blais et al.

Confirmation No.: 2136

Serial No. 10/419,024

Art Unit: 2811

Filed: April 17, 2003

Examiner: To be assigned

For: RESONANT CONTROLLED  
QUBIT SYSTEM

Attorney Docket No.: 706700-999147  
(formerly 11090-012-999)

**REVOCATION AND POWER OF ATTORNEY OR AUTHORIZATION OF AGENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

D-Wave Systems, Inc. (assignee) hereby revokes any and all previous powers and appoints:

Practitioners at Customer Number 20583, and Brett Lovejoy, Reg. No. 42,813

as its/their their attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

The above mentioned Customer Number.

Practitioners at Customer Number 20583

Firm or Individual Name:

Address: Jones Day  
222 East 41st Street  
New York, New York 10017

Telephone: (212) 790-2803

D-Wave Systems, Inc. is the:

Applicant/Inventor  
 Assignee of record of the entire interest. See 37 CFR 3.71.  
(*Statement under 37 CFR 3.73(b) is applicable*)

**Statement Under 37 C.F.R. 3.73(b)**

D-Wave Systems, Inc. states that it is:

the assignee of the entire right, title, and interest; or  
 an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is %

in the patent application/patent identified above by virtue of either:

An assignment from the inventor(s) of the patent application/patent identified above for which a copy thereof is attached.

OR

A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: To: . The document was recorded in the United States Patent and Trademark Office on at Reel, Frame, or for which a copy thereof is attached.

2. From: To:

The document was recorded in the United States Patent and Trademark Office on at Reel , Frame , or for which a copy thereof is attached.

3. From: To:

The document was recorded in the United States Patent and Trademark Office on at Reel , Frame , or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet.

Copies of assignments or other documents in the chain of title are attached.

[Note: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

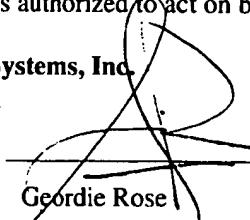
The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

**ASSIGNEE: D-Wave Systems, Inc.**

Date:

MAR 05 2004

Signature:



Geordie Rose

Typed Name:

Position/Title:

Chief Executive Officer

Note: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required.

Total of 1 form is submitted.

## **ASSIGNMENT** **JOINT**

WHEREAS WE, Alexandre Blais, a citizen of Canada, residing at #3-421 Whitney Ave., New Haven, CT, U.S.A. 06511; Alexandre Zagoskin, a citizen of Canada, residing at 2065 West 8<sup>th</sup> Ave., Vancouver, British Columbia, Canada, V6J 1W4; and Jeremy P. Hilton, a citizen of Canada, residing at 322-2263 Redbud Lane, Vancouver, British Columbia, Canada, V6K 4V7, ASSIGNORS, are the inventors of the invention in RESONANT CONTROLLED QUBIT SYSTEM for which we have executed an application for a Patent of the United States

- which is identified by Jones Day docket no. 706700-999147
- which was filed on April 17, 2003, Application No. 10/419,024

and WHEREAS, D-Wave Systems, Inc., organized and existing under the laws of Canada, and having an office for the transaction of business at 320-1985 West Broadway, Vancouver, British Columbia, V6J 4Y3, Canada, ASSIGNEE is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNS, have sold, assigned transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof:

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I/WE HEREBY covenant and agree that I/we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

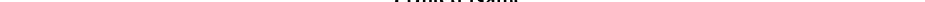
AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, said ASSIGNORS have executed and delivered this instrument to said ASSIGNEE the day and year below written.

1. *Signature* \_\_\_\_\_

Signature A. Zeeckin Printed Name Alexander Zeeckin  
Date MAR 05 2004, 2004 L.S.

Witnessed by: M. Steininger Alexander Zagorskin  
Signature: M. Steininger Alexander Zagorskin

Signature  Printed Name John C. Yost  
Date March 2, 2004

Witnessed by: Jeremy P. Hilton  
Signature Jeremy P. Hilton  
Printed Name Jeremy P. Hilton

## ASSIGNMENT

## JOINT

WHEREAS WE, Alexandre Blais, a citizen of Canada, residing at #3-421 Whitney Ave., New Haven, CT, U.S.A. 06511; Alexandre Zagorskin, a citizen of Canada, residing at 2065 West 8<sup>th</sup> Ave., Vancouver, British Columbia, Canada, V6J 1W4; and Jeremy P. Hilton, a citizen of Canada, residing at 322-2263 Redbud Lane, Vancouver, British Columbia, Canada, V6K 4V7, ASSIGNORS, are the inventors of the invention in RESONANT CONTROLLED QUBIT SYSTEM for which we have executed an application for a Patent of the United States

- which is identified by Jones Day docket no. 706700-999147
- which was filed on April 17, 2003, Application No. 10/419,024

and WHEREAS, D-Wave Systems, Inc., organized and existing under the laws of Canada, and having an office for the transaction of business at 320-1985 West Broadway, Vancouver, British Columbia, V6J 4Y3, Canada, ASSIGNEE is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I/WE HEREBY covenant and agree that I/we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, said ASSIGNORS have executed and delivered this instrument to said ASSIGNEE the day and year below written.

Date March 05, 2004 Alexander Bleis. I.S.

Witnessed by Alexandre Blais  
Signature HELENE VEILLETTE  
Printed Name

Date \_\_\_\_\_, 2004 \_\_\_\_\_ I.S.

Alexandre Zagorskin

---

**Signature** \_\_\_\_\_ **Printed Name** \_\_\_\_\_

Jeremy P. Hilton

Signatures \_\_\_\_\_

**Signature** **Printed Name**

## DECLARATORY FOR NON-PROVISIONAL PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et. seq. beneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et. seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled:

## RESONANT CONTROLLED QUBIT SYSTEM

and for which a patent application:

is attached hereto and includes amendment(s) filed on \_\_\_\_\_ (if applicable)  
 was filed in the United States on April 17, 2003 as Application No. 10/419,024 (for declaration not accompanying application) with amendment(s) filed on \_\_\_\_\_ (if applicable)  
 was filed as PCT International Application No. on and was amended under PCT Article 19 on (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED PRIOR TO THE FILING DATE OF THE APPLICATION			
APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIORITY CLAIMED
			NO <input type="checkbox"/>
			NO <input type="checkbox"/>
			NO <input type="checkbox"/>

I hereby claim the benefit under Title 35, United States Code, §119(3) of any United States provisional application(s) listed below.

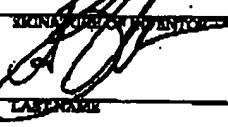
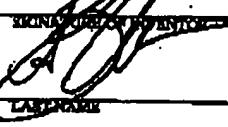
PROVISIONAL APPLICATION NUMBER	FILING DATE
60/374,261	April 20, 2002
60/385,123	May 31, 2002
60/395,704	July 12, 2002

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information known to me which is material to patentability as defined in Title 35, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

NON-PROVISIONAL APPLICATION SERIAL NO.	FILING DATE	STATUS		
		PATENTED	PENDING	ABANDONED

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I hereby declare that all statements made herein of my own knowledge are true and that all information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

2 0 1	FULL NAME OF INVENTOR <b>Blais</b>	LAST NAME <b>Blais</b>	FIRST NAME <b>Alexandre</b>	MIDDLE NAME	
2 0 1	RESIDENCE & CITIZENSHIP <b>New Haven</b>	CITY <b>New Haven</b>	STATE OR FOREIGN COUNTRY <b>Connecticut</b>	COUNTRY OF CITIZENSHIP <b>Canada</b>	
2 0 1	POST OFFICE ADDRESS <b>#3-421 Whitney Ave.</b>	STREET <b>#3-421 Whitney Ave.</b>	CITY <b>New Haven</b>	STATE OR COUNTRY <b>CT</b>	ZIP CODE <b>06511</b>
	SIGNATURE OF INVENTOR 				
2 0 2	FULL NAME OF INVENTOR <b>Hilton</b>	LAST NAME <b>Hilton</b>	FIRST NAME <b>Jeremy</b>	MIDDLE NAME <b>P.</b>	
2 0 2	RESIDENCE & CITIZENSHIP <b>Vancouver</b>	CITY <b>Vancouver</b>	STATE OR FOREIGN COUNTRY <b>British Columbia</b>	COUNTRY OF CITIZENSHIP <b>Canada</b>	
2 0 2	POST OFFICE ADDRESS <b>322-2263 Redbud Lane</b>	STREET <b>322-2263 Redbud Lane</b>	CITY <b>Vancouver</b>	STATE OR COUNTRY <b>British Columbia</b>	ZIP CODE <b>V6K 4V7</b>
	SIGNATURE OF INVENTOR 				
2 0 3	FULL NAME OF INVENTOR <b>Zagoskin</b>	LAST NAME <b>Zagoskin</b>	FIRST NAME <b>Alexandre</b>	MIDDLE NAME <b>M.</b>	
2 0 3	RESIDENCE & CITIZENSHIP <b>Vancouver</b>	CITY <b>Vancouver</b>	STATE OR FOREIGN COUNTRY <b>British Columbia</b>	COUNTRY OF CITIZENSHIP <b>Canada</b>	
2 0 3	POST OFFICE ADDRESS <b>2065 West 8th Ave.</b>	STREET <b>2065 West 8th Ave.</b>	CITY <b>Vancouver</b>	STATE OR COUNTRY <b>British Columbia</b>	ZIP CODE <b>V6J 1W4</b>
	SIGNATURE OF INVENTOR 				
2 0 4	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME	
2 0 4	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP	
2 0 4	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY	ZIP CODE
	SIGNATURE OF INVENTOR				
2 0 5	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME	
2 0 5	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP	
2 0 5	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY	ZIP CODE
	SIGNATURE OF INVENTOR				

BEST AVAILABLE COPY

As a below named inventor, I hereby do hereby do hereby

My residence, post office address and citizenship are as stated below at 201 et. seq. beneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et. seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**RESONANT CONTROLLED QUBIT SYSTEM**

and for which a patent application:

7 is attached hereto and includes amendment(s) filed on \_\_\_\_\_ (if applicable)

8 was filed in the United States on April 17, 2003 as Application No. 10/419,024 (for declaration not accompanying application) with amendment(s) filed on \_\_\_\_\_ (if applicable)

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I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment referred to above.

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I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED PRIOR TO THE FILING DATE OF THE APPLICATION			
APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIORITY CLAIMED
			NO ?
			NO ?
			NO ?

I hereby claim the benefit under Title 35, United States Code, §119(3) of any United States provisional application(s) listed below.

PROVISIONAL APPLICATION NUMBER	FILING DATE
60/374,261	April 20, 2002
60/385,123	May 31, 2002
60/395,704	July 12, 2002

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information known to me which is material to patentability as defined in Title 35, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

NON-PROVISIONAL APPLICATION SERIAL NO.	FILING DATE	STATUS		
		PATENTED	PENDING	ABANDONED

**BEST AVAILABLE COPY**

information and belief are **b** to be true, and further that these statements were **m** willful false statements and **t** made are punishable by fine or imprisonment, or **b**, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

2	0	1	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME	ADDRESS/CITY
2	0	1	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP	
2	0	1	POST OFFICE ADDRESS	STREET	CONNECTICUT Connecticut	Canada	STATE OR COUNTRY ZIP CODE
			SIGNATURE OF INVENTOR	New Haven		CT	06511
				<i>Alexandre Blais</i>		DATE	
						<i>Nov. 26, 2003</i>	
2	0	2	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME	ADDRESS/CITY
2	0	2	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP	
2	0	2	POST OFFICE ADDRESS	STREET	British Columbia	Canada	STATE OR COUNTRY ZIP CODE
			SIGNATURE OF INVENTOR	Vancouver		British Columbia	V6K 4V7
						DATE	
2	0	3	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME	ADDRESS/CITY
2	0	3	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP	
2	0	3	POST OFFICE ADDRESS	STREET	British Columbia	Canada	STATE OR COUNTRY ZIP CODE
			SIGNATURE OF INVENTOR	Vancouver		British Columbia	V6J 1W4
						DATE	
2	0	4	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME	ADDRESS/CITY
2	0	4	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP	
2	0	4	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY ZIP CODE	
			SIGNATURE OF INVENTOR			DATE	
2	0	5	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME	ADDRESS/CITY
2	0	5	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP	
2	0	5	POST OFFICE ADDRESS	STREET	CITY	STATE OR COUNTRY ZIP CODE	
			SIGNATURE OF INVENTOR			DATE	

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